

REMARKS

Claim 62 has been amended to clarify that the non-hepatocyte cell is a differentiated non-hepatocyte cell. This amendment is inherently supported by the list of particular non-hepatocyte cells listed, all of which are understood by the art to be differentiated cells (of gall bladder epithelial cells, gall bladder endothelial cells, bile duct epithelial cells, bile duct endothelial cells, hepatic vessel epithelial cells, hepatic vessel endothelial cells, sinusoid cells and non-parenchymal liver cells). Claim 65 has been amended to correct a grammatical error. None of the amendments made herein constitutes the addition of new matter.

The Requirement for Restriction

The Examiner has divided the claims into four groups and requires an election between Groups I through IV. Groups I through IV are defined below.

Group I	Claim(s) 52-57, drawn to a method for long-term culture of hepatocytes or non-hepatocytes.
Group II	Claim(s) 58-61, 76 and 77, drawn to a method of producing liver secretory factor from non-hepatocytes.
Group III	Claim(s) 62-75 and 89-91, drawn to an implantable composition comprising non-hepatocytes.
Group IV	Claim(s) 78-86, drawn to a method of treating a patient suffering from absence of a liver secreted factor by implanting an implantable composition comprising non-hepatocytes.

The Examiner has referred to prior art related to differentiation of bile duct progenitor cells into hepatocytes and has signaled that this would negate the common technical feature for unity of invention.

Applicants respectfully elect the invention of Group III for examination with traverse. The Group III claims (62-75 and 89-91) are drawn to an implantable composition comprising non-hepatocytes. Applicants respectfully request that the

claims of Group IV be examined together with those of Group III. Traverse is made on the grounds that the Group IV claims (78-86) are method of use of the compositions of the Group III claims. While Applicants do not concede that the claims of Groups III and IV represent inventions which are obvious over one another, it is noted that the common, novel technical feature is the use of fully differentiated non-hepatocyte cells that, surprisingly, secrete liver secretory factors, as set forth in the claims as amended. It is further noted that the present invention is not directed to progenitor cells or to the differentiation of non-hepatocyte cells into hepatocytes. It is believed that the prior art to which the Examiner has referred (Pang, US 2002/0012653) relates to the differentiation of bile duct progenitor cells into hepatocytes, and as such, is not relevant to the present claimed invention.

The Patent Office has further required an election of species, alleging that there is no common special technical feature with respect to type of non-hepatocyte cells, which include gall bladder epithelial cells, gall ladder endothelial cells, bile duct epithelial cells, bile duct endothelial cells, hepatic vessel epithelial cells, hepatic endothelial cells, sinusoid cells and non-parenchymal liver cells. The Patent Office has alleged that the lists of species of non-hepatocyte cells do not relate to a single general inventive concept under PCT Rule 13.1 because the species lack the same or corresponding special technical features (species are no art-recognized equivalents). Applicants elect gall bladder epithelial cells, with traverse, on the grounds that the group of these non-hepatocyte cells all have the ability to secrete liver secretory factors and these cells are all differentiated, and thus, these cell types should be deemed to form a proper Markush group in that they are unified by this functionality of secreting liver factors and the characteristic of differentiation. In the interest of advancing prosecution, Applicants have amended the claims to recite differentiated non-hepatocyte cells.

This Response is accompanied by a Petition for Extension of Time and payment of the fee of \$1110.00 as required by 37 C.F.R. 1.17(a) via the EFS-WEB filing system. It is believed that this response does not require the payment of any additional fees

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pursuant to 37 C.F.R. 1.16-1.17. If the amount submitted is incorrect or if further extension of time is required, please charge any deficiency or amount for any additional extension of time required or credit any overpayment to Deposit Account No. 07-1969.

Respectfully submitted,

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